

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1(Currently Amended). A compound having a structure selected from the group consisting of $X-R_n-A-Q_m-Y$, $R_n-X-A-Y-Q_m$, $R_n-X-A-Q_m-Y$ and $X-R_n-A-Y-Q_m$ wherein,

A is a single-stranded nucleic acid sequence, said single- stranded nucleic acid sequence being complementary to a pre-selected target sequence;

R is a photosensitive moiety such that upon irradiation with electromagnetic radiation having a wavelength corresponding to at least one absorption wavelength of R, R interacts through energy transfer with a molecule capable of producing free radicals, to produce free radicals;

Q is a moiety that quenches excited energy states of R;

X and Y are an affinity pair that interact to bring R and Q into close proximity in the absence of said target sequence thus enabling energy transfer between R and Q;

n and m are, independently, integers in the range 1-5; and

said compound optionally contains a linker moiety.

2(Currently Amended). ~~A~~ The compound according to claim 1, wherein R has an absorption wavelength of between 300 and 800nm.

3(Currently Amended). ~~A~~ The compound according to claim 1 ~~or~~ 2, wherein R is selected from the group consisting of chlorines, chorophylls, coumarines, cyanines, fullerenes, metallophthalocyanines, metalloporphyrins, methylenporphyrins, naphthalimides, naphthalocyanines, nile blue, perylenequinones, phenols, pheophoribes,

pheophyrins, phthalocyanines, porphycenes, porphyrins, psoralens, purpurins, quinines, retinols, rhodamines, thiophenes, verdins, xanthenes and dimers, oligomers and derivatives thereof.

4(Currently Amended). A The compound according to ~~any preceding~~ claim 1, wherein Q is selected from the group consisting of a non-fluorescing dye, a fluorophore, a second photosensitizing moiety, a nano-scaled semiconductor or conductor and gold.

5(Currently Amended). A The compound according to claim 4, wherein the second photosensitizing moiety is different to than R.

6(Currently Amended). A The compound according to ~~any preceding~~ claim 1, wherein X and Y are selected from the group consisting of complementary nucleic acid sequences, protein-ligand, antibody-antigen and protein-nucleic acid.

7(Currently Amended): A The compound according to ~~any preceding~~ claim 1, wherein the linker moiety is selected from the group consisting of linear substituted alkyl, linear unsubstituted alkyl, or branched substituted or unsubstituted alkyl, branched unsubstituted alkyl, and linear or branched substituted or unsubstituted heteroalkyl, linear unsubstituted heteroalkyl, branched substituted heteroalkyl, and branched substituted heteroalkyl groups.

8(Currently Amended). A The compound according to ~~any preceding~~ claim 1, wherein said molecule capable of producing free radicals is molecular oxygen.

9(Currently Amended). A The compound according to claim 8, wherein said free radicals are selected from the group consisting of singlet oxygen and reactive oxygen species.

10(Currently Amended). A The compound according to ~~any preceding~~ claim 1, wherein the compound is unimolecular.

11(Currently Amended). A The compound according to ~~any preceding~~ claim 1, wherein the compound is bimolecular.

12(Currently Amended). A complex comprising a compound according to ~~any of claims claim 1 to 11~~ which is bound to a carrier which increases the ~~internalisation~~ internalization of said compound.

13(Currently Amended). A The complex according to claim 12, wherein said compound is bound to said carrier by electrostatic interaction or covalent interaction.

14(Currently Amended). A The complex according to claim 13, wherein the carrier is a polycation.

15(Currently Amended). A The complex according to claim 14, wherein the polycation is a histone or polylysine.

16(Currently Amended). A The complex according to claim 12, wherein said compound is bound to said carrier by covalent interaction.

17(Currently Amended). A The complex according to claim ~~16~~ 13, wherein the carrier is a protein or peptide.

18(Currently Amended). A The complex according to claim 17, wherein the protein is an antibody, an antibody fragment, or a cholesterolin.

19(Currently Amended). A The complex according to ~~any of claims~~ claim 12 to 18, wherein the carrier targets a specific cell surface protein.

20(Currently Amended). A The complex according to claim 19, wherein the cell surface protein is selected from the group consisting of a low-density lipoprotein receptor, an endothelial growth factor receptor, a fibroblast growth factor receptor, an integrin, an insulin receptor, an epidermal growth factor receptor and a transferrin receptor.

21(Currently Amended). A The complex according to ~~any of claims~~ claim 12 to 20, wherein the complex is encapsulated in a lipid mixture, said lipid mixture comprising at least two members independently selected from the group consisting of phospholipids, sterols and cationic lipids.

22(Currently Amended). A The complex according to claim 21, wherein the lipid mixture comprises ~~is in the form of~~ liposomes.

23(Currently Amended). A The complex according to claim 22, wherein the liposomes are from about 50 to 150 nm in diameter.

24(Currently Amended). A ~~compound~~ pharmaceutical composition comprising (a) a compound according to any of claims claim 1 to 11 or a complex according to any of claims 12 to 23, wherein said compound is optionally bound to a carrier which increases the internalization of said compound and (b) or complex is associated with at least one pharmaceutically acceptable carrier or excipient.

25-29(Canceled).

30(Currently Amended). A method of killing cells by photochemotherapy comprising the steps:

- (i) incubating ~~the~~ target cells with an effective amount of a compound ~~or a complex~~ according to ~~any preceding claim 1, optionally bound to a carrier which~~ increases the internalization of said compound;
- (ii) allowing sufficient time for the compound to hybridise to a target nucleic acid sequence within the cells; and
- (iii) ~~irradiation of~~ irradiating the target cells with electromagnetic radiation of a wavelength that corresponds to at least one absorption wavelength of the photosensitive moiety R such that R interacts through energy transfer with a molecule capable of producing free radicals, to produce free radicals which kill said cells.

31(Currently Amended). A The method according to claim 30, wherein said molecule capable of producing free radicals is molecular oxygen.

32(Currently Amended). A The method according to claim 31, wherein said free radicals are selected from the group consisting of singlet oxygen and reactive oxygen species.

33(Currently Amended). A The method according to ~~any of claims~~ claim 30 ~~to 32~~, wherein irradiation with electromagnetic radiation is performed within between 1 minute and 168 hours after incubation with the compound ~~or complex~~.

34(Currently Amended). A The method according to ~~any of claims~~ claim 30 ~~to 33~~, wherein the total fluence of electromagnetic radiation used for irradiation is between 2 J/cm² and 500 J/cm².

35(Currently Amended). A kit for preparing a compound according to ~~any of~~
~~claims claim 1 to 11~~ comprising:

- (a) one or more affinity pairs;
- (b) one or more photosensitizing and quenching moieties; and
- (c) one or more target complement sequences.

36(Canceled).

37(New). The method according to claim 30 which is useful for treating a patient suffering form a condition selected from the group consisting of neovascularization, age related macular degeneration, diabetic retinopathy, arthritis, and cancer.